

IN THE CLAIMS:

1. (Currently Amended). A linker molecule, comprising ~~one or more nucleic acid binding group(s) and one or more nanoparticle binding group(s) which are connected covalently by a spacer group~~ at least one nucleic acid binding group covalently connected by a spacer group to at least one nanoparticle binding group adapted to bind a nanoparticle thereto, wherein said nanoparticle comprises a metal selected from the group consisting of Fe, Co, Ni, Cu, Ru, Rh, Pd, Os, Ir, Pt, Ag, Au and combinations thereof.

2. (Currently Amended). A The linker molecule according to claim 1, wherein said nucleic acid binding group is selected from the group of ~~agents comprising~~ consisting of intercalating agents, groove-binding agents, alkylating agents, and combinations thereof.

3. (Currently Amended). A The linker molecule according to claim 2, wherein the intercalating agent is selected from the group of ~~compounds comprising~~ consisting of acridines, anthraquinones, diazapyrenium derivatives, furanocoumarins (~~psoralens~~), naphthalene diimides, naphthalene monoimides, phenanthridines, porphyrins, and metal coordination complexes containing planar, aromatic ligands (~~metallointercalators~~).

4. (Currently Amended). A The linker molecule according to claim 2; wherein the groove-binding agent is selected from the group of ~~compounds comprising~~ consisting of bis-benzamidines, bis-benzimidazoles, lexitropsins, perylene diimides, phenylbenzimidazoles, porphyrins, pyrrole oligopeptides and viologens.

5. (Currently Amended). A The linker molecule according to claim 2, wherein the alkylating agent is selected from the group of ~~compounds comprising~~ consisting of aziridines, 2-

chloroethane derivatives, epoxides, nitrogen mustards, sulfur mustards and metal coordination complexes ~~having~~ comprising at least one leaving group ligand.

6. (Currently Amended). A The linker molecule according to claim 5, wherein the metal coordination complexes that are alkylating agents are selected ~~form~~ from the group of ~~complexes comprising~~ consisting of Pt^{2+} , Pt^{4+} , Pd^{2+} , Ru^{2+} , Ru^{3+} , Rh^{1+} , Rh^{2+} , and Rh^{3+} ~~having~~ comprising at least one ligand selected from the group ~~comprising~~ consisting of halide, water, di(alkyl)sulfoxide, nitrate, sulfate, carboxylate, substituted carboxylate, carbonate, phosphate, nitrite, sulfite, and hydroxide.

7. (Currently Amended). A The linker molecule according to claim 1, wherein the nanoparticle binding group forms covalent bonds with surface ligands on the nanoparticle or displaces existing surface ligands on the nanoparticle, or combinations thereof.

8. (Currently Amended). A The linker molecule according to claim 1, wherein the nanoparticle binding group comprises at least one covalent bond forming functional group selected from the group consisting of carboxylic acids ~~and derivatives thereof~~, sulfonic acids ~~and derivatives thereof~~, amines, alcohols, thiols, aldehydes, ketones, isocyanates, isothiocyanates, ethers, and halides.

9. (Currently Amended). A The linker molecule according to claim 1, wherein the nanoparticle binding group comprises at least one metal-binding group selected from the group consisting of amines, phosphines, thiols, disulfides, dithiocarbamates, dithiophosphates, dithiophosphonates, thioethers, thiosulfates, and thioureas.

10-30. (Cancelled).

31. (New). The linker molecule according to claim 3, wherein said intercalating agent is a metallointercalator.

32. (New) The linker molecule according to claim 3, wherein said intercalating agent is a psoralen.